

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent of:

HU *et al.*

Patent No.: 7,227,005 B1

Issued: June 5, 2007

For: **Vascular Endothelial Growth
Factor 2**

Confirmation No.: 1980

Art Unit: 1647

Examiner: Landsman, Robert S.

Atty. Docket: 1488.1000009/PAJ/LMB

Request for Certificate of Correction Under 37 C.F.R. § 1.322

Attn: Certificate of Correction Branch

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

It is hereby requested that a Certificate of Correction under 37 C.F.R. § 1.322 be issued for the above-captioned United States Patent. This Certificate of Correction is being requested due to mistakes which appear in the printed patent. These mistakes were made by the U.S. Patent and Trademark Office (USPTO).

Specifically, the printed patent contains the following errors for which a Certificate of Correction is respectfully requested:

Requested Change	Location of Support in File History
On the front page, under the PTA Notice, above Section (21), please insert: --This patent is subject to a terminal disclaimer.--	Terminal Disclaimers filed on February 4, 2003 and September 7, 2004.
In the Related U.S. Application Data, Section (60), please delete:	Examiner's Amendment which accompanied the Notice of Allowance mailed July 11, 2006.

<p>"Division of application No. 08/999,811, filed on Dec. 24, 1997, now Pat. No. 5,932,540, which is a continuation-in-part of application No. 08/207,550, filed on Mar. 8, 1994, now abandoned, and a continuation-in-part of application No. 08/465,968, filed on Jun. 6, 1995." and insert therein</p> <p>--Division of application No. 08/999,811, filed on Dec. 24, 1997, now Pat. No. 5,932,540, which is a continuation-in-part of application No. 08/207,550, filed on Mar. 8, 1994, now abandoned, and a continuation-in-part of application No. 08/465,968, filed on Jun. 6, 1995, now Pat. No. 6,608,182.--.</p>	
<p>In column 1, line 12, please delete "Jun. 6, 1995" and insert therein --Jun. 6, 1995, now issued as U.S. Pat. No. 6,608,182--.</p>	<p>Examiner's Amendment which accompanied the Notice of Allowance mailed July 11, 2006.</p>
<p>In column 53, claim 50, please delete "polypep tide" and insert therein --polypeptide--.</p>	<p>Preliminary Amendment filed on September 7, 2004.</p>
<p>In column 53, claim 62, please delete "coronary. artery disease" and insert therein --coronary artery disease--.</p>	<p>Preliminary Amendment filed on September 7, 2004.</p>
<p>In column 54, claim 83, please delete "potypeptide" and insert therein --polypeptide--.</p>	<p>Preliminary Amendment filed on September 7, 2004.</p>

In support of these corrections, copies of the Notice of Allowance mailed July 11, 2006, the Preliminary Amendment filed on September 7, 2004 and the Terminal Disclaimers filed on February 4, 2003 and September 7, 2004 are enclosed.

Remarks

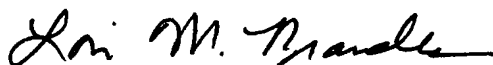
The above-noted corrections do not involve such changes in the patent as would constitute new matter or would require reexamination.

A completed Form PTO/SB/44 accompanies this request, with the above-noted corrections printed thereon. Accordingly, a Certificate of Correction is believed proper and issuance thereof is respectfully requested. No fee is required because these were mistakes of the USPTO.

The Commissioner is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Lori M. Brandes
Agent for Patentees
Registration No. 57,772

Date: 8/14/2007

1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600
708267v1

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

Page 1 of 1

PATENT NO: 7,227,005 B1

DATED: June 5, 2007

PATENTEES: HU *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

On the front page, under the PTA Notice, above Section (21), please insert:

--This patent is subject to a terminal disclaimer.--

In the Related U.S. Application Data, Section (60), please delete:

"Division of application No. 08/999,811, filed on Dec. 24, 1997, now Pat. No. 5,932,540, which is a continuation-in-part of application No. 08/207,550, filed on Mar. 8, 1994, now abandoned, and a continuation-in-part of application No. 08/465,968, filed on Jun. 6, 1995." and insert therein

--Division of application No. 08/999,811, filed on Dec. 24, 1997, now Pat. No. 5,932,540, which is a continuation-in-part of application No. 08/207,550, filed on Mar. 8, 1994, now abandoned, and a continuation-in-part of application No. 08/465,968, filed on Jun. 6, 1995, now Pat. No. 6,608,182.--

In column 1, line 12, please delete "Jun. 6, 1995" and insert therein --Jun. 6, 1995, now issued as U.S. Pat. No. 6,608,182--.

In column 53, claim 50, please delete "polypep tide" and insert therein --polypeptide--.

In column 53, claim 62, please delete "coronary. artery disease" and insert therein --coronary artery disease--.

In column 54, claim 83, please delete "potypeptide" and insert therein --polypeptide--.

708270v1

MAILING ADDRESS OF SENDER (Please do not use customer number below):

1100 New York Avenue, NW
Washington DC 20005-3934
Atty. Dkt. No. 1488.100000I/PAJ/LMB

This collection of information is required by 37 CFR 1.322, 1.323 and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

28730 7590 07/11/2006

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

LANDSMAN, ROBERT S

ART UNIT

PAPER NUMBER

1647

DATE MAILED: 07/11/2006

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/257,272	02/25/1999	JING-SHAN HU	1488.1000009/HCC/LMB	1980

TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR 2

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400	\$0	\$1400	\$1400	10/11/2006

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
- B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax **(571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the **ISSUE FEE** and **PUBLICATION FEE** (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

28730 7590 07/11/2006

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/257,272	02/25/1999	JING-SHAN HU	1488.1000009/HCC/LMB	1980

TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR 2

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400	\$0	\$1400	\$1400	10/11/2006

EXAMINER	ART UNIT	CLASS-SUBCLASS
LANDSMAN, ROBERT S	1647	530-350000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/257,272	02/25/1999	JING-SHAN HU	1488.1000009/HCC/LMB	1980
28730	7590	07/11/2006	EXAMINER	
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. 1100 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			LANDSMAN, ROBERT S	
			ART UNIT	PAPER NUMBER
			1647	
DATE MAILED: 07/11/2006				

Determination of Patent Term Extension under 35 U.S.C. 154 (b) (application filed after June 7, 1995 but prior to May 29, 2000)

The Patent Term Extension is 0 day(s). Any patent to issue from the above-identified application will include an indication of the 0 day extension on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.

09/257,272

Examiner

Robert Landsman

Applicant(s)

HU ET AL.

Art Unit

1647

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the RCE filed 5/17/06.
2. ☒ The allowed claim(s) is/are 161-272 (renumbered as claims 1-112).
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

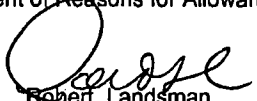
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>5/17/06</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |


Robert Landsman
Primary Examiner
Art Unit: 1647

Art Unit: 1647

EXAMINER'S AMENDMENT

In the Specification:

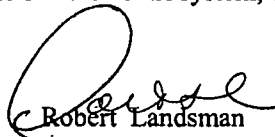
In the first line, after the phrase "June 06, 2005" add "now U.S. Patent No. 6,608,182"

Advisory information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Landsman whose telephone number is (571) 272-0888. The examiner can normally be reached on M-Th 10 AM – 7 PM (eastern).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brenda Brumback can be reached on 571-272-0961. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Robert Landsman
Primary Examiner
Art Unit 1647



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Patent Application of:
Hu et al.

Docket No.: PF112P2D2

Application No.: 09/257,272

Confirmation No.: 1980

Filed: February 25, 1999

Art Unit: 1647

For: Vascular Endothelial Growth Factor 2

Examiner: R. S. Landsman

PRELIMINARY AMENDMENT

Honorable Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Prior to substantive examination, Applicants respectfully request entry of the following amendments and remarks. Applicants submit herewith: (1) a Terminal Disclaimer; and (2) a Fee Transmittal, with appropriate fee(s).

Amendments to the claims begin at page 2.

Remarks begin at page 13.

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims.

1-160. (Canceled)

161. (Previously Presented) An isolated protein comprising an amino acid sequence that is at least 90% identical to a polypeptide encoded by the cDNA contained in ATCC Deposit No. 75698, wherein said isolated protein proliferates endothelial cells.
162. (Previously Presented) The isolated protein of claim 161, wherein said amino acid sequence is at least 95% identical to a polypeptide encoded by the cDNA contained in ATCC Deposit No. 75698.
163. (Previously Presented) A fusion protein comprising the isolated protein of Claim 161 fused to a heterologous polypeptide.
164. (Previously Presented) The isolated protein of Claim 161 comprising a homodimer.
165. (Previously Presented) The isolated protein of Claim 161 which is glycosylated.
166. (Previously Presented) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the isolated protein of claim 161, wherein the patient has a wound, tissue, or bone damage.
167. (Previously Presented) The method of claim 166, wherein said patient has ischemia.
168. (Previously Presented) The method of claim 166, wherein said patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.
169. (Previously Presented) The method of claim 166, wherein said patient has had a myocardial infarction.

170. (Previously Presented) The method of claim 166, wherein the method stimulates angiogenesis.
171. (Previously Presented) The method of claim 166, wherein the patient is a human.
172. (Previously Presented) A method of stimulating angiogenesis in a patient comprising administering to the patient the isolated protein of claim 161, wherein the patient has a wound, tissue, or bone damage.
173. (Previously Presented) The method of claim 172, wherein said patient has ischemia.
174. (Previously Presented) The method of claim 172, wherein said patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.
175. (Previously Presented) The method of claim 172, wherein said patient has had a myocardial infarction.
176. (Previously Presented) The method of claim 172, wherein said patient is a human.
177. (Previously Presented) An isolated protein comprising an amino acid sequence that is at least 90% identical to a polypeptide encoded by the cDNA contained in ATCC Deposit No. 97149, wherein said isolated protein proliferates endothelial cells.
178. (Previously Presented) The isolated protein of claim 177, wherein said amino acid sequence is at least 95% identical to a polypeptide encoded by the cDNA contained in ATCC Deposit No. 97149.
179. (Previously Presented) A fusion protein comprising the isolated protein of Claim 177 fused to a heterologous polypeptide.
180. (Previously Presented) The isolated protein of Claim 177 comprising a homodimer.

181. (Previously Presented) The isolated protein of Claim 177 which is glycosylated.
182. (Previously Presented) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the isolated protein of claim 177, wherein the patient has a wound, tissue, or bone damage.
183. (Previously Presented) The method of claim 182, wherein said patient has ischemia.
184. (Previously Presented) The method of claim 182, wherein said patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.
185. (Previously Presented) The method of claim 182, wherein said patient has had a myocardial infarction.
186. (Previously Presented) The method of claim 182, wherein the method stimulates angiogenesis.
187. (Previously Presented) The method of claim 182, wherein the patient is a human.
188. (Previously Presented) A method of stimulating angiogenesis in a patient comprising administering to the patient the isolated protein of claim 177, wherein the patient has a wound, tissue, or bone damage.
189. (Previously Presented) The method of claim 188, wherein said patient has ischemia.
190. (Previously Presented) The method of claim 188, wherein said patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.
191. (Previously Presented) The method of claim 188, wherein said patient has had a myocardial infarction.
192. (Previously Presented) The method of claim 188, wherein said patient is a human.

193. (Previously Presented) An isolated protein comprising an amino acid sequence that is at least 90% identical to a polypeptide comprising amino acids 71 to 396 of SEQ ID NO:2, wherein said isolated protein proliferates endothelial cells.
194. (Previously Presented) The isolated protein of claim 193, wherein said amino acid sequence is at least 95% identical to a polypeptide comprising amino acids 71 to 396 of SEQ ID NO:2.
195. (Previously Presented) A fusion protein comprising the isolated protein of Claim 193 fused to a heterologous polypeptide.
196. (Previously Presented) The isolated protein of Claim 193 comprising a homodimer.
197. (Previously Presented) The isolated protein of Claim 193 which is glycosylated.
198. (Previously Presented) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the isolated protein of claim 193, wherein the patient has a wound, tissue, or bone damage.
199. (Previously Presented) The method of claim 198, wherein said patient has ischemia.
200. (Previously Presented) The method of claim 198, wherein said patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.
201. (Previously Presented) The method of claim 198, wherein said patient has had a myocardial infarction.
202. (Previously Presented) The method of claim 198, wherein the method stimulates angiogenesis.
203. (Previously Presented) The method of claim 198, wherein the patient is a human.

204. (Previously Presented) A method of stimulating angiogenesis in a patient comprising administering to the patient the isolated protein of claim 193, wherein the patient has a wound, tissue, or bone damage.
205. (Previously Presented) The method of claim 204, wherein said patient has ischemia.
206. (Previously Presented) The method of claim 204, wherein said patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.
207. (Previously Presented) The method of claim 204, wherein said patient has had a myocardial infarction.
208. (Previously Presented) The method of claim 204, wherein said patient is a human.
209. (Previously Presented) An isolated protein comprising an amino acid sequence that is at least 90% identical to a polypeptide comprising amino acids 47 to 396 of SEQ ID NO:2, wherein said isolated protein proliferates endothelial cells.
210. (Previously Presented) The isolated protein of claim 209, wherein said amino acid sequence is at least 95% identical to a polypeptide comprising amino acids 47 to 396 of SEQ ID NO:2.
211. (Previously Presented) A fusion protein comprising the isolated protein of Claim 209 fused to a heterologous polypeptide.
212. (Previously Presented) The isolated protein of Claim 209 comprising a homodimer.
213. (Previously Presented) The isolated protein of Claim 209 which is glycosylated.
214. (Previously Presented) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the isolated protein of claim 209, wherein

the patient has a wound, tissue, or bone damage.

- 215. (Previously Presented) The method of claim 214, wherein said patient has ischemia.
- 216. (Previously Presented) The method of claim 214, wherein said patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.
- 217. (Previously Presented) The method of claim 214, wherein said patient has had a myocardial infarction.
- 218. (Previously Presented) The method of claim 214, wherein the method stimulates angiogenesis.
- 219. (Previously Presented) The method of claim 214, wherein the patient is a human.
- 220. (Previously Presented) A method of stimulating angiogenesis in a patient comprising administering to the patient the isolated protein of claim 209, wherein the patient has a wound, tissue, or bone damage.
- 221. (Previously Presented) The method of claim 220, wherein said patient has ischemia.
- 222. (Previously Presented) The method of claim 220, wherein said patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.
- 223. (Previously Presented) The method of claim 220, wherein said patient has had a myocardial infarction.
- 224. (Previously Presented) The method of claim 220, wherein said patient is a human.
- 225. (Previously Presented) An isolated protein comprising an amino acid sequence that is at least 90% identical to a polypeptide comprising amino acids 24 to 396 of SEQ ID NO:2, wherein said isolated protein proliferates endothelial cells.

- 226. (Previously Presented) The isolated protein of claim 225, wherein said amino acid sequence is at least 95% identical to a polypeptide comprising amino acids 24 to 396 of SEQ ID NO:2.
- 227. (Previously Presented) A fusion protein comprising the isolated protein of Claim 225 fused to a heterologous polypeptide.
- 228. (Previously Presented) The isolated protein of Claim 225 comprising a homodimer.
- 229. (Previously Presented) The isolated protein of Claim 225 which is glycosylated.
- 230. (Previously Presented) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the isolated protein of claim 225, wherein the patient has a wound, tissue, or bone damage.
- 231. (Previously Presented) The method of claim 230, wherein said patient has ischemia.
- 232. (Previously Presented) The method of claim 230, wherein said patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.
- 233. (Previously Presented) The method of claim 230, wherein said patient has had a myocardial infarction.
- 234. (Previously Presented) The method of claim 230, wherein the method stimulates angiogenesis.
- 235. (Previously Presented) The method of claim 230, wherein the patient is a human.
- 236. (Previously Presented) A method of stimulating angiogenesis in a patient comprising administering to the patient the isolated protein of claim 225, wherein the patient has a wound, tissue, or bone damage.

237. (Previously Presented) The method of claim 236, wherein said patient has ischemia.
238. (Previously Presented) The method of claim 236, wherein said patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.
239. (Previously Presented) The method of claim 236, wherein said patient has had a myocardial infarction.
240. (Previously Presented) The method of claim 236, wherein said patient is a human.
241. (Previously Presented) An isolated protein comprising an amino acid sequence that is at least 90% identical to a polypeptide comprising amino acids 1 to 396 of SEQ ID NO:2, wherein said isolated protein proliferates endothelial cells.
242. (Previously Presented) The isolated protein of claim 241, wherein said amino acid sequence is at least 95% identical to a polypeptide comprising amino acids 1 to 396 of SEQ ID NO:2.
243. (Previously Presented) A fusion protein comprising the isolated protein of Claim 241 fused to a heterologous polypeptide.
244. (Previously Presented) The isolated protein of Claim 241 comprising a homodimer.
245. (Previously Presented) The isolated protein of Claim 241 which is glycosylated.
246. (Previously Presented) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the isolated protein of claim 241, wherein the patient has a wound, tissue, or bone damage.
247. (Previously Presented) The method of claim 246, wherein said patient has ischemia.

248. (Previously Presented) The method of claim 246, wherein said patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.
249. (Previously Presented) The method of claim 246, wherein said patient has had a myocardial infarction.
250. (Previously Presented) The method of claim 246, wherein the method stimulates angiogenesis.
251. (Previously Presented) The method of claim 246, wherein the patient is a human.
252. (Previously Presented) A method of stimulating angiogenesis in a patient comprising administering to the patient the isolated protein of claim 241, wherein the patient has a wound, tissue, or bone damage.
253. (Previously Presented) The method of claim 252 , wherein said patient has ischemia.
254. (Previously Presented) The method of claim 252 , wherein said patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.
255. (Previously Presented) The method of claim 252 , wherein said patient has had a myocardial infarction.
256. (Previously Presented) The method of claim 252 , wherein said patient is a human.
257. (Previously Presented) An isolated protein comprising an amino acid sequence that is at least 90% identical to a polypeptide comprising amino acids -23 to 396 of SEQ ID NO:2, wherein said isolated protein proliferates endothelial cells.
258. (Previously Presented) The isolated protein of claim 257, wherein said amino acid sequence is at least 95% identical a polypeptide comprising amino acids -23 to 396 of SEQ ID NO:2.

- 259. (Previously Presented) A fusion protein comprising the isolated protein of Claim 257 fused to a heterologous polypeptide.
- 260. (Previously Presented) The isolated protein of Claim 257 comprising a homodimer.
- 261. (Previously Presented) The isolated protein of Claim 257 which is glycosylated.
- 262. (Previously Presented) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the isolated protein of claim 257, wherein the patient has a wound, tissue, or bone damage.
- 263. (Previously Presented) The method of claim 262, wherein said patient has ischemia.
- 264. (Previously Presented) The method of claim 262, wherein said patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.
- 265. (Previously Presented) The method of claim 262, wherein said patient has had a myocardial infarction.
- 266. (Previously Presented) The method of claim 262, wherein the method stimulates angiogenesis.
- 267. (Previously Presented) The method of claim 262, wherein the patient is a human.
- 268. (Previously Presented) A method of stimulating angiogenesis in a patient comprising administering to the patient the isolated protein of claim 257, wherein the patient has a wound, tissue, or bone damage.
- 269. (Previously Presented) The method of claim 268, wherein said patient has ischemia.
- 270. (Previously Presented) The method of claim 268, wherein said patient has coronary

artery disease, peripheral vascular disease, or CNS vascular disease.

271. (Previously Presented) The method of claim 268, wherein said patient has had a myocardial infarction.

272. (Previously Presented) The method of claim 268, wherein said patient is a human.

273-400. (Canceled)

REMARKS

Claims 1-160 and 273-400 have been canceled.

Provisional Double Patenting Rejection

In the Final Office Action mailed January 5, 2004, claims 33-48, 65-96 and 113-272 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting over the claimed invention in one or more of the following copending United States Patent Applications: 09/219,442, 09/935,726, 08/465,968, 09/107,997, 10/060,523, 10/127,551 and 10/084,488. Claims 33-48, 65-96 and 113-160 have been canceled.

With respect to claims 161-272, Applicants agreed to file a Terminal Disclaimer in the present application over any claims in the cited copending applications that were allowed or issued prior to allowance of the instant application. In this respect, Applicants note that Application Serial No. 10/060,523 is now abandoned. Application Serial No. 08/465,968 issued as United States Patent No. 6,608,182 on August 19, 2003 and Application Serial No. 10/084,488 issued as United States Patent No. 6,734,285 on May 11, 2004. Applicants therefore submit herewith a Terminal Disclaimer over United States Patent Nos. 6,608,182 and 6,734,285.

Written Description

Claims 33-48, 65-96, and 113-160 were rejected under 35 U.S.C. § 112, first paragraph as lacking written description for the terms "mature" and "proprotein." These claims have now been canceled, rendering this rejection moot.

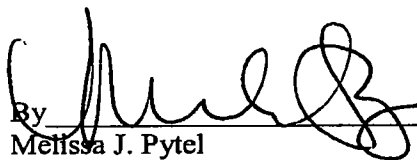
CONCLUSION

In view of the foregoing amendments and remarks Applicants believe they have fully addressed the Examiner's concerns and that this application is now in condition for allowance. An early notice to that effect is urged. A request is made to the Examiner to call the undersigned at the phone number provided below if any further action by Applicants would expedite allowance of this application.

If there are any fees due in connection with the filing of this paper, please charge the fees to our Deposit Account No. 08-3425. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Dated: Sept. 7, 2004

Respectfully submitted,

By 
Melissa J. Pytel

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MMW/MJP/ba



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TC 1700

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Docket No. 02/19/2003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Hu et al.

Application No.: 09/257,272-Conf. #1980

Group Art Unit: 1647

Filed: December 23, 1998

Examiner: R. Landsman

For: Vascular Endothelial Growth Factor 2

TERMINAL DISCLAIMER

Commissioner for Patents
Washington, DC 20231

Dear Sir:

Your Petitioner, Melissa J. Pytel, represents that she holds the position of Attorney of Human Genome Sciences, Inc. (hereinafter the "Assignee"), which is the owner of the entire right, title and interest in and to the above-identified application by virtue of an assignment which was recorded on August 18, 1998, at Reel 9440, Frame 0794 in Application Serial No. 08/999,811, filed December 24, 1997.

The Assignee hereby disclaims the terminal part of any patent granted on the above identified application which would extend beyond the expiration date of U.S. Patent No. 5,932,540, which issued on August 3, 1999, and hereby agrees that any patent so granted on the above identified application shall be enforceable only for and during such period that the legal title to said patent shall be the same as the legal title to U.S. Patent No. 5,932,540.

The Assignee further agrees that this agreement is to run with any patent granted on the above-identified application and is to be binding upon the grantee, its successors, and assigns.

The Assignee does not disclaim any terminal part of the patent granted on the above-identified application prior to the expiration date of the full statutory term of U.S. Patent No. 5,932,540 in the event that said patents later expire for failure to pay a maintenance fee, are held unenforceable, are found invalid, are statutorily disclaimed in whole or terminally disclaimed under 37 C.F.R. 1.321(a), have all claims canceled by a reexamination certificate, or are otherwise terminated prior to the expiration of their full statutory term, except for the separation of legal title stated above.

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01 FC:1814

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Petitioner hereby confirms that she has reviewed the assignment and, to the best of her knowledge and belief, the entire title is in the Assignee seeking to take action in this matter and that she is empowered to act on behalf of Human Genome Sciences, Inc.

The fee under 37 C.F.R. § 1.20(d) for processing this Terminal Disclaimer is believed to be \$110.00. The Commissioner is hereby authorized to charge the required fee to Deposit Account No. 08-3425. A Fee Transmittal with appropriate fee is enclosed.

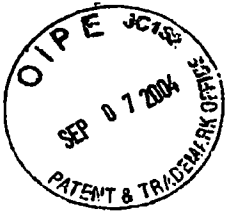
Petitioner hereby declares that all statements made herein of her own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signed this 4th day of February, 2003.

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By 
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Hu et al.

Docket No.: PF112P2D2

Application No.: 09/257,272

Confirmation No.: 1980

Filed: February 25, 1999

Art Unit: 1647

For: Vascular Endothelial Growth Factor 2

Examiner: R. S. Landsman

TERMINAL DISCLAIMER UNDER 37 C.F.R. § 1.321(c)

Human Genome Sciences, Inc. ("HGS") is the assignee of the entire right, title and interest in and to the instant application by virtue of an assignment of the priority U.S. Application No. 08/999,811, filed December 24, 1997, recorded in the U.S. Patent and Trademark Office on August 18, 1998, at Reel 9440, Frame 0794. HGS hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application, which would extend beyond the expiration date of the full statutory term defined in 35 U.S.C. §§ 154 to 156, as presently shortened by any terminal disclaimer, of prior U.S. Patent Nos. 6,608,182 and 6,734,285. HGS hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and U.S. Patent Nos. 6,608,182 and 6,734,285 are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, HGS does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term as defined in 35 U.S.C. §§ 154 to 156 of U.S. Patent Nos. 6,608,182 and 6,734,285, as presently shortened by any terminal disclaimer, in the event that it later: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 C.F.R. § 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.

The undersigned is an attorney of record in the instant application. Pursuant to 37 C.F.R. §§ 1.321(b)(4) and § 1.20(d), the Commissioner is hereby authorized to charge required fee of

\$110.00 to our Deposit Account No. 08-3425, as indicated on the Fee Transmittal Sheet submitted concurrently herewith.

Dated: Sept. 7, 2004

Respectfully submitted,

By 

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* Practice Limited to Federal Agencies

August 14, 2007

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Commissioner for Patents
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Alexandria, VA 22313-1450

Attn: Certificate of Correction Branch

Re: U.S. Utility Patent
Patent No. 7,227,005 B1; Issued: June 5, 2007
For: **Vascular Endothelial Growth Factor 2**
Inventors: HU *et al.*
Our Ref: 1488.1000009/PAJ/LMB

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Request for Certificate of Correction Under 37 C.F.R. § 1.322;
2. United States Patent and Trademark Office Certificate of Correction (Form PTO/SB/44);
3. Copies of the Notice of Allowance mailed July 11, 2006 and the Preliminary Amendment filed on September 7, 2004; and
4. Copies of the Terminal Disclaimers filed on February 4, 2003 and September 7, 2004.

The above-listed documents are filed electronically through EFS-Web. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Lori M. Brandes
Agent for Patentees
Registration No. 57,772

PAJ/LMB/eaf

Enclosures

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